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ABSTRACT

This paper addresses the prevalence and identification of social skills deficits in students with learning disabilities. It begins by discussing the definition of learning disabilities and then reviews literature on the social difficulties of this population. Findings indicate that approximately 75 percent of children with learning disabilities have difficulties in social competence, experience lower social status, and are perceived more negatively by both teachers and typical peers. Academic achievement for students with and without learning disabilities is found to be associated with diminished social status and low peer acceptance. Students with learning disabilities are considered to be at greater risk for developing an assortment of social and behavioral problems, including deficits in verbal and nonverbal communication, immaturity, aggression and hostility, poor problem-solving skills, and low self-esteem. Loneliness was also found to be a problem for students with learning disabilities. No single cause was found that determined the prevalence of social skills deficits in children with learning disabilities. The paper closes by reviewing the success of different interventions. Interventions that seem particularly helpful in addressing social skills deficit include social skills training and inclusive educational settings. (Contains 35 references.) (CR)

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**Identification and Remediation of
Social Skills Deficits in
Learning Disabled Children**

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**A Research Paper Submitted to the Faculty of the
Department of Special Education at Chicago State
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Degree of Master of Science**

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Abstract

Research has long supported the position that social skills deficits are more prevalent among students with learning disabilities (LD) than among their nondisabled counterparts. These deficits can affect all aspects of the life of a child with LD, including academic achievement, self-esteem, and peer relations, as well as impacting negatively on chances for future success. While an exact cause of these social skills deficits has not been identified, possible causes may include: (a) neurological dysfunction; (b) comorbidity with various psychiatric disorders; and (c) negative environmental or family influences. Thus far, attempts at remediation include social skills training, therapeutic treatment, and inclusion in a regular education classroom, and have not yet evidenced a strong measure of success. It is hoped that further examination of the social skills deficits that characterize learning disabled children will reveal additional treatment options, for these social deficits can create lifelong problems for individuals with learning disabilities.

Identification and Remediation of Social Skills Deficits in Learning Disabled Children

Introduction

Experts in the field of learning disabilities (LD) have long expressed the opinion that social skill deficits characterize many children diagnosed as learning disabled (Haager & Vaughn, 1995; Kavale & Forness, 1996; Lerner, 1997). The social functioning of students with learning disabilities has received considerable attention due to the strong and consistent link between early difficulties in social competence and adjustment problems occurring later in life (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). Bender and Wall (1994) report that the social-emotional development of students with LD may be severely impaired during adolescence and early adulthood, and that these social impairments may lead to involvement with juvenile authorities, the legal system, or both, as well as resulting in decreased satisfaction in peer relationships and inadequate social interactions. Since many of these social problems surface during the school years and escalate in early adolescence (Sabornie, 1994), it would appear that an examination of the social skills deficits of learning disabled students during the pre- and early-adolescent years (fourth through eighth grades) might lead to a better understanding of the difficulties these students face in the area of social competence.

Before examining the social skills deficits of learning disabled students, it is necessary to come to an agreement about the meaning of the term social skills. Bramlett, Smith, and Edmonds (1994) define social skills as "behaviors that enable a person to interact effectively with others and to avoid socially

unacceptable behaviors," and further indicate that "social skills may include behaviors related to (a) peer or social acceptance, (b) peer rejection, (c) perceived status, (d) aggression, (e) immaturity, (f) on-task behavior, and (g) social problem solving" (p. 13). The ability to form and maintain successful peer relationships appears especially important; Ochoa and Olivarez (1995, p. 1) report that "peer relationships are considered to be critical for healthy development," and also state that "children with poor peer adjustment are at risk for later life difficulties." Problems with peer relationships are frequently investigated due to the evidence linking peer rejection and low social status with negative outcomes later in life. These problems include emotional maladjustment, a higher school dropout rate, a stronger likelihood of criminality (Vaughn & Hogan, 1994), and later psychiatric problems (Vaughn & Haager, 1994). Numerous studies have shown that children with LD are less accepted and more rejected by peers than nonhandicapped children (Vaughn & Haager). Bender and Wall (1994) indicate that knowledge concerning the social-emotional development of students with LD continues to grow, causing the field to shift in the direction of "a more inclusive view of what a learning disability is" (p. 324).

Various definitions of the term learning disabilities have been suggested and debated over the years, with recent "definition debates" hinging on noncognitive issues such as social skills and classroom behavior (Bender, 1994). The Association for Children with Learning Disabilities proposed the following new definition of LD:

Specific Learning Disabilities is a chronic condition of presumed neurological origin which selectively interferes with the development,

integration, and/or demonstration of verbal and/or non-verbal abilities. Specific Learning Disabilities exists as a distinct handicapping condition in the presence of average to superior intelligence, adequate sensory and motor systems, and adequate learning opportunities. The condition varies in its manifestations and in degree of severity. Throughout life the condition can affect self-esteem, education, vocation, *socialization* [italics added], and/or daily living activities (Balter, 1996, p. 40).

Previous definitions of learning disabilities did not include reference to social skills deficits, nor did they recognize the life-long affect this condition can have on all aspects of an individual's daily existence (Balter, 1996; Lerner, 1997). In 1987, based on an exhaustive evaluation of available research, the Interagency Committee on Learning Disabilities (ICLD) concluded that social skills deficits represent a specific learning disability, and proposed a modified definition, stating that, "learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested in significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities, and of social skills" (ICLD, 1987, p. 222). Though many researchers support this viewpoint (Bender & Wall, 1994; Conderman, 1995; Forness & Kavale, 1996; Ochoa & Olivarez, 1995; Sabornie, 1994), others express the opinion that students with LD are not a homogeneous group with respect to their psychosocial characteristics, and that although learning disabilities and social skill deficits often exist concurrently, this in no way implies that social difficulties are attributable to specific learning disorders (Bramlett, Smith, & Edmonds, 1994; Gresham, McMillan, & Bocian, 1996; Haager & Vaughn, 1995; Tur-Kaspa & Byron, 1995).

If such differences in social competence exist, then an investigation of the social deficits of students with LD may lead to a better understanding of the far-reaching effects learning disabilities can have on all aspects of the lives of those affected. Therefore, the author proposes a comprehensive examination of the literature pertaining to the differences in social competence between learning disabled and non-learning disabled students. Of particular interest are whether children with LD exhibit deficits in areas concerning peer relations, and on how these deficits might be remediated. Since social skills become critical as children approach adolescence (Conderman, 1995; Wenz-Gross & Siperstein, 1997), the author has chosen to focus on the pre- and early-adolescent years (fourth through eighth grades) of children with LD, believing that if deficits in social skills do exist, they would be most likely to appear or intensify during this period.

Review of Literature

From the 1970s to the present time, a substantial body of evidence has suggested that individuals with learning disabilities experience social difficulties in addition to their academic problems (Kavale & Forness, 1996). Wenz-Gross and Siperstein (1997) report that learning disabled children have lower social status than non-learning disabled children and are more likely to be perceived negatively, both by their nondisabled peers and their teachers. Social skills deficits can impact negatively on both social and academic achievement and may, in fact, exacerbate achievement problems and increase the probability of referral for special education services (Kavale & Forness).

Comparing the social skills deficits of students with and without learning disabilities. Though social skills deficits appear to coexist with LD in

many cases, problems with social competence are certainly not exclusively or invariably characteristic of all children with learning disabilities (San Miguel, Forness, & Kavale, 1996). Some studies comparing the social status of children with LD to those without suggest that many learning disabled children are accepted by their nondisabled peers (Coleman & Minnett, 1993). Tur-Kaspa and Bryan (1995) support these findings, stating that a considerable proportion of children with LD are as socially skilled as nondisabled children. Tur-Kaspa and Bryan admit, however, that the majority of data indicate that learning disabled children are less accepted and more socially rejected than their nondisabled peers, and consider them a population at heightened risk for the development of social-relationship problems.

While Vaughn and Haager (1994) cite numerous studies supporting the claim that students with LD are less well accepted and more frequently rejected by peers than nonhandicapped children, they also examine research comparing learning disabled students with low-achieving and average/high achieving comparison groups which has yielded equivocal results. Vaughn and Haager report that few differences between learning disabled and nonhandicapped students of similar low achievement status emerged during their six year investigation, and that none of the components of social competence measured yielded significant differences between learning disabled and low-achieving students. This might suggest that the presence of social skills deficits has less to do with learning disabilities than it does with overall low academic achievement. Sabornie (1994) refutes these findings, however, stating that "early adolescents with and without LD are quite different with regard to certain social-affective traits" (p. 277). These characteristics include loneliness,

integration, victimization, and participation, and were shown to produce significant differences between the comparison groups, in all cases favoring students without learning disabilities (Sabornie). Kavale and Forness (1996) agree, reporting that many students with LD are likely to exhibit social skills deficits of a magnitude and to an extent that distinguishes them from their nondisabled peers. These findings indicate that approximately 75% of students with learning disabilities could be differentiated from their non-learning disabled peers through measures of social competence, and that 70 to 80% of learning disabled students were deficient in the areas of social problem solving, understanding social situations and generating the appropriate associated behaviors, as well as being more rejected and less accepted by their non-LD counterparts. Furthermore, learning disabled children were found to manifest these social skills deficits regardless of whether the assessments were performed by parents, teachers, or peers (Kavale & Forness, 1996). Tur-Kaspa and Bryan (1995) also report that students with learning disabilities exhibit significant deficits in social skills when compared to both normal-achieving and low-achieving students, and contend that the social difficulties of students with LD are not solely a function of low academic achievement.

Teachers observed differences in the levels of social competence between learning disabled and nondisabled students in various areas. Kavale and Forness (1996) report that teachers perceive two areas as fundamentally different in students with and without LD: (a) a lack of academic competence, and (b) less frequent social interaction with peers. Teachers' reports indicate that eight out of ten students with LD manifest these two problems, and that they represent major social skills deficits in students with LD. Other

dimensions which differentiate LD students from their non-LD peers include hyperactivity, distractibility, and adjustment problems; approximately 80% of learning disabled students were more likely to experience difficulties in these areas. Such deficits can lead to a lack of goal directed and attending behaviors, and are viewed by teachers as important social skills deficits among LD students (Kavale & Forness). Coleman and Minnett (1993) also report that teachers consider learning disabled students less skilled socially, and find that teachers engage in more negative interactions with these students than with their nondisabled counterparts. Generally speaking, teachers report that children with LD exhibit problems in at least some areas of social competence, and find these students at a disadvantage in many social situations when compared to their nondisabled classmates (Coleman & Minnett, 1993; Haager & Vaughn, 1995; Kavale & Forness, 1996; Sabornie, 1994).

When students are asked to rate classmates in areas such as popularity, social status, and friendship, learning disabled students are rated consistently lower than their nondisabled counterparts in all areas (Coleman & Minnett, 1993; Conderman, 1995; Kavale & Forness, 1996; Vaughn, Elbaum, & Schumm, 1996). Vaughn et al. contend that children with LD are less well-accepted and more frequently rejected by nondisabled classmates, are more likely to be ignored and viewed negatively, and are less likely to be chosen as playmates, even prior to being identified as learning disabled. In addition, learning disabled children are rated less popular, less athletic, less attractive, and generally less well liked by their peers without LD. Conderman attributes the lower ratings received by LD children in the areas of appearance and athleticism to lower overall popularity and social status. It appears that

children who received lower ratings in the areas of popularity and friendship are not considered attractive or athletic by their peers, regardless of their actual merit in these areas. Non-LD students perceived their learning disabled peers as possessing lower social status, and as interacting, playing, and empathizing at lower levels in general than nonhandicapped students (Kavale & Forness). For these reasons, students with LD were less often chosen by non-LD children as friends; Kavale and Forness report that approximately 70% of learning disabled children would not be considered as friends by their nondisabled peers. Coleman and Minnett suggest that to be considered popular by peers without LD, children with learning disabilities must exhibit significantly higher levels of pro-social behavior than are required of the most popular non-LD students.

Negative perceptions by teachers and peers impact upon the self esteem and feelings of self-worth of learning disabled students. Vaughn and Haager (1994) report that self-perceptions of students with LD are generally lower than those of their nonhandicapped peers, and that these self-perceptions tend to decline throughout the elementary years. Students without learning disabilities report greater satisfaction with self, school, and home than do students with LD, who report the highest levels of dissatisfaction with events concerning self and school (Conderman, 1995). This is not surprising, considering that students with LD are found to be less well liked in general by peers and teachers, as well as more likely to be neglected or rejected by their nondisabled classmates (Coleman & Minnett, 1993; Vaughn, Zaragoza, Hogan, & Walker, 1993).

Areas in which social skills deficits impact on the behavior and experiences of learning disabled children. Many learning disabled students are

not well accepted by their peers, exhibit social skills deficits, and have difficulties making and keeping friends (Spafford & Grosser, 1993). These LD students are also perceived less favorably by significant adults such as teachers and parents (Tur-Kaspa & Bryan, 1995). Both regular education and special education teachers view children with learning disabilities as having significantly more problems with school-appropriate behaviors (e.g., task orientation, independence, and reactivity), as well as experiencing difficulties in social functioning (e.g., acting out, immaturity, and problems with pragmatics) (Tur-Kaspa & Bryan). These social behavior problems may explain why students with learning disabilities are more likely to be rejected or neglected by their peers; deficits in social skills often cause these students to act in ways that make them undesirable as friends (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). Vaughn, McIntosh, et al. indicate that other factors less obviously within the student's control, such as low academic achievement and negative teacher perceptions, may also contribute to the low peer acceptance of learning disabled children. Sabornie (1994) cites numerous studies demonstrating that children with LD experience (a) social acceptance problems among their nondisabled peers in the regular classroom; (b) secondary personality problems that are exhibited in school settings; (c) social integration problems in school; and (d) decreased satisfaction with their social lives. Spafford and Grosser (1993) report that the social difficulties of LD students run the gamut from mild misperceptiveness to juvenile delinquency.

As previously stated, students with LD are more likely to be rejected or ignored by their nondisabled peers (Tur-Kaspa & Bryan, 1995). Conderman (1995) asserts that differentiating between children who are rejected and those

who are neglected is important, as children who are rejected are at considerably greater risk for negative future outcomes. Kavale and Forness (1996) report that as many as 80% of learning disabled children are rejected by their nondisabled peers. Coleman and Minnett (1993) agree that children with LD are often rejected by their peers, but contend that this outcome is not inevitable. While the majority of learning disabled children may fall into the rejected category, a substantial number are considered popular and, as such, share many of the positive social characteristics of popular children without disabilities (Coleman & Minnett). Most studies, however, still indicate that the vast majority of students with LD experience substantially more rejection by their classmates than do nondisabled students (Spafford & Grosser, 1993; Vaughn, Elbaum, & Schumm, 1996; Vaughn & Haager, 1994; Vaughn, Zaragoza, Hogan, & Walker, 1993; Wiener & Harris, 1993).

Less certain are what the negative effects might be for learning disabled children who are neglected or ignored. These neglected children are often described as shy and withdrawn, and display no offensive behaviors which might bring them to the attention of teachers or classmates (Conderman, 1995). Rejection and neglect by nondisabled peers define the social interactions of many students with LD, and are often associated with increased levels of loneliness in learning disabled children (Margalit & Levin-Alyagon, 1994). Parker and Asher (1993) assert that "loneliness can seriously undermine children's feelings of well-being" (p. 619). According to Bender and Wall (1994), both children and adolescents with LD are more likely to experience high levels of loneliness than their nondisabled peers. Margalit and Levin-Alyagon agree that children with learning disabilities display more loneliness,

and relate these feelings to the social skills deficits of LD students and to the fact that these children are generally less accepted by their peers.

Students with learning disabilities are found to be less competent in both verbal and nonverbal communication than their nondisabled peers (Kavale & Forness, 1996). Wenz-Gross and Siperstein (1997) report that a number of children with LD have deficits in their conversational abilities, are burdened by a lack of linguistic sophistication, and tend to misinterpret the subtleties of spoken language. These conversational deficits may include a failure to understand and appropriately respond to humor and sarcasm, especially if slight sound changes result in more than one possible meaning (Spafford & Grosser, 1993), as well as problems with pragmatics in both receptive and expressive language (Tur-Kaspa & Bryan, 1995).

Children with LD frequently exhibit deficits in nonverbal communication. Kavale and Forness (1996) view the social deficits of learning disabled children as consisting of the following three components: (a) problems perceiving, decoding, and interpreting social cues; (b) difficulty selecting an appropriate response; and (c) an inability to appropriately enact the correct social response; studies show that more than 80% of children with LD are less able to understand various aspects of nonverbal communication than their nondisabled classmates (Kavale & Forness). Bender and Wall (1994) state that children with LD have difficulty interpreting social events, and experience problems in choosing subsequent actions that depend upon such interpretations. Sabornie (1994) agrees that many students with LD misread nonverbal communication, and further contends that these students often misinterpret nonthreatening interpersonal cues as being aggressive. Learning

disabled children appear to view social situations as unfriendly (Spafford & Grosser, 1993), exhibiting deficits in evaluating the facial expressions, gestures, and body language of their peers (Wenz-Gross & Siperstein, 1997). MacDonald (1993) asserts that "how a child interprets social cues influences the child's social behaviors which in turn are interpreted and responded to by peers (p. 4). Children with LD maintain shorter eye contact and smile less frequently than nondisabled children, which also adversely affect social interactions (Spafford & Grosser). Thus, the learning disabled child is involved in a cycle of social misperception, which ultimately leads to further difficulties in social functioning.

Learning disabled students are viewed by both teachers and peers as being less cooperative and more deficient in problem solving skills than nondisabled students (Kavale & Forness, 1996). In fact, Kavale and Forness report that more than 80% of students with LD did not know how to respond when presented with a social conflict. Margalit and Levin-Alyagon (1994) suggest that inefficient and inaccurate processing might lead children with LD to react more aggressively in response to conflicts. Though younger learning disabled children display some inappropriate behaviors at school, the rate of hostility, delinquency, and violence increase as students with LD approach adolescence (Bender & Wall, 1994). Ochoa and Olivarez (1995) find that learning disabled students evidence more immaturity, aggression, and personality problems than their nonhandicapped peers. Students with LD may mistakenly interpret a classmate's intentions as hostile and therefore, be more likely to display aggression in return (Margalit & Levin-Alyagon). Wasik, Wasik, and Frank (1993) report that children who are viewed by teachers and

peers as disruptive or aggressive are considered to be at high risk for negative future outcomes such as dropping out of school, police contact, school suspension, grade retention, and truancy. Children rated popular by peers were found to display less aggression and were less disruptive in general (MacDonald, 1993). According to Sabornie (1994), students with learning disabilities may act too aggressively with the wrong peers, thereby provoking a retaliatory response. Roberts and Zubrick (1993), however, disagree that students with LD display more aggressive and disruptive behaviors, suggesting instead that teachers and peers judge the disruptive behavior of students with LD more harshly than they judge the disruptive behavior of students without disabilities. Others believe, however, that children with LD generally exhibit significantly more immature, aggressive, and disruptive behaviors than their peers without LD (Ochoa & Olivarez; Sabornie).

Kavale and Forness (1996) assert that as many as 70% of students with LD possess poor self-esteem. Research has suggested that the overall negative self-concept and lower perceived competence exhibited by learning disabled children negatively affects both social behavior and general academic achievement (Bander & Wall, 1994). Various hypotheses have been suggested to explain the relationship between low self-esteem and learning disabilities, including the following: (a) LD leads to low self-concept and peer rejection; (b) poor social relationships lead to both low self-esteem and LD; (c) Social skills deficits, poor self-esteem, and LD emanate from the same neurological origin; or (d) having learning disabilities places children at a greater risk for various psychiatric disorders, such as depression, which are often accompanied by a diminished self-concept (Forness & Kavale, 1996). Spafford and Grosser (1993)

relate the low self-esteem of learning disabled children to their more frequent rejection by peers and teachers, and contend that teacher rejection is especially significant, since the majority of a child's day is spent with teachers. Some data suggest that labeling children learning disabled can also be detrimental to self-esteem, whereas other studies contend that placement in special education may have a positive effect on a child's self-concept (Vaughn & Haager, 1994). The belief that children with LD possess a generally lower self-esteem than nondisabled children is far from universal; Vaughn and Haager report that both low-achieving and learning disabled students experience diminished feelings of self-worth, whereas Sabornie (1994) finds that as students with LD grow older, they appear to form a more positive and appropriate self image. Although this is an area in which much dissension exists, studies still find deficits in self-esteem to be a significant problem for children with learning disabilities (San Miguel, Forness, & Kavale, 1996).

Low self-esteem puts learning disabled children at a substantially higher risk for developing both an external locus of control and learned helplessness (Spafford & Grosser, 1993). An external locus of control is defined by Spafford and Grosser as the attribution of both success and failure to external forces; children exhibiting an external locus of control believe that failure is usually inevitable and success is out of reach due to factors beyond their control. Bender and Wall (1994) agree, stating that learning disabled children frequently perceive both academic and social outcomes as controlled by external factors. Approximately 70% of students with LD attribute their successes to luck; effort, ability, and the difficulty of the task do not appear to influence how learning disabled students view their successes (Kavale &

Forness, 1996)). Spafford and Grosser contend that prolonged school and personal failures reinforce these beliefs in LD students, and further state that this external locus of control situation is instrumental in creating an attitude of learned helplessness. According to Friend and Bursuck (1996), students with learning disabilities do not see the relationship between their efforts and either academic or personal success. In children exhibiting learned helplessness, success is usually attributed to luck, and failure is perceived as the result of a lack of ability (Friend & Bursuck). Both the external locus of control syndrome and learned helplessness can interfere with a child's ability to develop important social strategies (Spafford & Grosser); it is not surprising, therefore, that learning disabled children who experience increased academic and social failure would feel as if their efforts in these areas were futile, and subsequently attenuate their efforts in these areas. If no effort is expended by children with LD in the areas of socialization and peer relations, social skills deficits are likely to become apparent.

The relationship between peer relations and social skills deficits. The importance of satisfactory peer relationships to future success cannot be discounted. Since the academic activity of children takes place in a social context, Wasik, Wasik, and Frank (1993) contend that poor peer relationships may have a negative effect on both academic and social adjustment. Demerath (1994) finds that having satisfactory peer relations, especially during the transition from elementary to junior high school, supports self esteem, positively influences attitudes toward school, and predicts academic achievement and the likelihood of future success. Both physiological and cognitive changes occurring in early adolescence appear to make children

particularly disposed toward and dependent on peers, especially peers similar in characteristics such as age, gender, ethnic origin, ability, primary language, and interests (Demerath). Ochoa and Olivarez (1995) consider children with poor peer adjustment to be at risk for difficulties later in life, and find the examination of peer relations important because of the relationship between poor social adjustment and later life problems. This consistent link between peer relationship difficulties and future problems is especially relevant when considering students with LD, as these children are often more socially rejected and neglected than their nondisabled peers (Coleman & Minnett, 1993), and are therefore are in jeopardy of developing a wide array of difficulties later in life (Ochoa & Olivarez). Forness and Kavale (1996) find that social skills deficits pose a significant risk factor in the ultimate outcome of individuals with learning disabilities, and that the social and behavioral problems associated with deficits in social competence lead to a lack of resilience which persists into the adult years.

Feelings of loneliness and poor self-esteem experienced by learning disabled students are directly influenced by the lack of acceptance these students receive from their peers (Parker & Asher, 1993). Though some data suggest that this lack of peer acceptance is a result of low academic achievement, and is shared by other low-achieving children (Vaughn, Zaragoza, Hogan, & Walker, 1993), other research indicates that when evenly matched in the areas of sex, race, and reading achievement, learning disabled students receive significantly lower ratings of peer acceptance than either low-achieving or average-achieving classmates (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). Parker and Asher report that acceptance by a peer

group may be an important prerequisite to the development of children's leadership and assertive skills, as well as meeting the need children have to feel that they are part of a larger group or community. Though children with LD may lack peer acceptance, Wenz-Gross and Siperstein (1997) find that these children develop the same number of relationships with peers and other non-family members as children without LD. Since these results indicate that the social network of students with learning problems does not differ significantly in composition or size from that of nondisabled students, it appears that other aspects involved in the peer relationships of learning disabled children must offer some explanation of the social skills deficits which are prevalent among these children.

Although group acceptance plays an important role in children's social status, Parker and Asher (1993) indicate that the ability to form and maintain satisfying and supportive reciprocal friendships with other children is more indicative of emotional well-being. Reciprocal friendships are defined by Vaughn, McIntosh, Schumm, Haager, and Callwood (1993) as friendships in which both parties identify the other as a good friend. Having a satisfying one-to-one friendship appears to circumvent the feelings of loneliness and social dissatisfaction experienced by many children with learning problems (Parker & Asher). Vaughn, McIntosh, et al. report that having even a single best friend lessens the social adjustment difficulties experienced by children with LD, and that being involved in a strong reciprocal friendship can serve as a buffer for many of the negative outcomes that are usually associated with peer rejection. Wenz-Gross and Siperstein (1997) also assert that although learning disabled students may often be viewed negatively by their peer group, many still share

a close, supportive relationship with at least one reciprocal friend. Therefore, concerns for the emotional well-being of neglected and rejected children with LD might be attenuated by the presence of at least one supportive, reciprocal friendship (Parker & Asher). Data suggest that the number of learning disabled children who have a reciprocal best friend is equivalent to the number of low-achieving, average-achieving, and high-achieving peers (Vaughn, McIntosh, et al.). It appears evident, therefore, that a close reciprocal friendship can do a great deal to lessen the negative impact of neglect and rejection by the larger peer group of a child with learning problems.

Although learning disabled students may be involved in as many reciprocal friendships as their nondisabled peers, some questions exist as to the quality of these relationships. Whereas Wenz-Gross and Siperstein (1997) find no differences in the negative features (such as conflict and competition) in the friendships of children with and without learning disabilities, children with learning problems appear to experience fewer positive features (such as intimacy, loyalty, self-esteem, and contact) in their friendships. Students with LD turn to friends less often for emotional support and companionship, and consider their friends and families less of a source of problem-solving support than students without LD (Wenz-Gross & Siperstein). Parker and Asher (1993) point out that friendship meets specific needs of children, among which are the need for intimacy, support, and a reliable ally. The friendships of children with learning problems are reported as more problematic in many respects, providing less validation, caring, help, guidance, conflict resolution, and intimacy, as well as greater levels of conflict and betrayal (Parker & Asher). Thus, the friendships of children with LD are unlike those of their nondisabled

peers, especially in the areas of support and intimacy, and may reflect a difference in the quality of the friendships of children with learning disabilities (Wenz-Gross & Siperstein).

Possible causes of social skills deficits. The exact origin of social skills deficits exhibited by learning disabled children is often unclear (San Miguel, Forness, & Kavale, 1994). Addressing the issue of causation is necessary because of the possibility that it may provide information to assist in the prevention or remediation of these socialization problems. Vaughn, Zaragoza, Hogan, and Walker (1993) question whether these social skills deficits are specific to the individual's learning disability (e.g., processing or communication deficits), or whether the social skills problems might relate more closely to low achievement in general. Professionals have traditionally blamed the social difficulties of children with LD on one of the following two reasons: either an intrinsic psychological defect present in those with learning disabilities, or a failure on the part of schools to offer adequate social skills training or remediation (Spafford & Grosser, 1993). Forness and Kavale (1996) discuss several hypotheses that attempt to explain the increased presence of social skills deficits in children with learning disabilities, including: (a) having learning disabilities causes low self-esteem and peer rejection; (b) having poor social skills leads to underachievement and learning disabilities; (c) a common risk factor, such as neurological dysfunction, causes both learning disabilities and social skills deficits to develop; (d) having learning disabilities places children at a greater risk for various psychiatric disorders, such as depression or Attention Deficit Disorder (ADD), and this comorbidity accounts for most social skills deficits in students with LD; and (e) negative environmental or

family issues have a greater impact upon learning disabled children than upon their nondisabled peers. Within this framework, the author proposes that certain areas be examined to see if a determination can be made as to whether their relationship might be causal, correlational, or merely coincidental.

As previously discussed, children with learning disabilities tend to suffer from lower self-esteem and more peer rejection than children without LD (Bender & Wall, 1994). Kavale and Forness (1996) report that 70% of learning disabled students exhibit a low self-concept and poor peer relations, and while this does indicate that students with LD are more likely to show evidence of social skills deficits, the other 30% of learning disabled children do not appear to suffer from this problem. Since almost a third of students with LD have adequate social skills, it would appear that social skills deficits are not a certain consequence for all children with LD. Therefore, it is unlikely that the presence of LD alone can be responsible for the social skills deficits of some learning disabled children.

Social skills deficits have been shown to exacerbate academic achievement problems and increase the probability that a child will be referred for special education services (Kavale & Forness, 1996). Students with poor social skills are involved in more negative interactions with teachers (Coleman & Minnett, 1993), which may result in lower academic achievement and poor school performance. It is not true, however, that all children with poor social skills have LD (Kavale & Forness), leading the author to dismiss this hypothesis as an explanation of the relationship between LD and social skills deficits in all but a small percentage of cases.

The theory that a common risk factor, such as neurological dysfunction,

causes both learning disabilities and social skills deficits does appear to have some research validity. Spafford and Grosser (1993) hypothesize that neurological impairment in some children with LD, while not directly causing social skills deficits to appear, initiates a chain of events that results in a variety of communication problems and social failures. Considerable data support the theory that impaired communication skills (both verbal and nonverbal) in learning disabled students often result in poor social skills, and that the lack of communicative competence can be traced to central nervous system dysfunction (Kavale & Forness; Spafford & Grosser; Wenz-Gross & Siperstein, 1997). Spafford and Grosser also indicate that visual and auditory processing deficits are often a part of a child's learning disability and that these deficits may account for the impaired interpretation of auditory and visual social cues. While it is conceivable that neurological impairments associated with learning disabilities may also affect areas of the brain crucial to proficient social awareness, as of yet, neuropsychologists cannot locate any specific brain areas essential to social competence (Spafford & Grosser). Therefore, although this hypothesis has surface validity, more research needs to be done before any conclusions can be reached concerning the causal relationship between neurological dysfunction and social skills deficits.

Another explanation offered for the prevalence of social skills deficits in learning disabled children is the theory that having LD increases the likelihood that children will have various psychiatric disorders, such as ADD or depression, which in turn puts these children at a greater risk for problems in social skills development. San Miguel, Forness, and Kavale (1996) report that, for children with both learning disabilities and ADD "the consequent

hyperactivity, distractibility, and/or impulsivity may interfere with school, peer interaction, and family life" (p. 254), and find that learning disabled children diagnosed with Attention Deficit Disorder are at greater risk for social skills deficits than those without ADD. San Miguel et al. also report that certain cognitive and behavioral symptoms characteristic of children with depression (e.g., self-depreciation, diminished concentration, indecisiveness, slowed thinking, inattention, antisocial behavior, and isolation from others) often overlap those of children with learning disabilities, and that when assessed by professionals in the field of childhood depression, a substantially higher percentage of learning disabled children score in the depressed range. Comorbidity of LD with psychiatric disorders such as ADD and depression may range as high as 25%, leading San Miguel et al. to conclude that social skills deficits in learning disabled children may often involve the presence of these psychiatric disorders. While the author agrees that having both LD and a psychiatric disorder may put a child at heightened risk for the development of social skills deficits, additional data are needed to determine whether psychiatric disorders actually cause social skills problems to develop in students with learning disabilities, or if both conditions might stem from a common neurological dysfunction. More research is required in this area; at this time, evidence of a causal relationship between psychiatric disorders and learning disabilities has not been clearly demonstrated.

It has also been suggested that environmental and family problems may cause social skills deficits to develop in some students with learning disabilities. San Miguel, Forness, and Kavale (1996) indicate that some children and adolescents with LD fail to demonstrate necessary social competencies

because of limited environmental opportunities to learn and perform such skills, as well as a lack of reinforcement if such skills are demonstrated. Turkaspa and Bryan (1995) suggest that the social difficulties of some learning disabled students may be the outcome of reciprocal interactions between the child with LD and his or her environment, family, teachers, and peers. For some children with LD, social skills deficits may be related to a familial support system whose effectiveness is reduced by the stress of dealing with a special-needs child (San Miguel et al.). While environmental deficits or a lack of family support may increase the risk that social skills problems will develop, the majority of existing research does not regard environmental and familial factors as a primary source of social skills deficits in learning disabled children (Kavale & Forness, 1996; Spafford & Grosser, 1993).

Remediating social skills deficits. Due to the strong and consistent link between learning disabilities and social skills deficits, it is important to develop and implement procedures that can assist children with LD in developing basic social competencies (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). Although different interventions have been attempted, it appears that current remediation efforts have been less than successful in addressing these students' most severe social skills problems (Bender & Wall, 1994). Since social skills deficits are likely to result in additional frustration for the learning disabled student, compensatory skills need to be acquired to assist these children in dealing with social situations (Spafford & Grosser, 1993). At the present time, remediation efforts fall into the following three categories: (a) social skills training for learning disabled students; (b) therapeutic, psychological, or psychopharmacological treatments; and (c) the inclusion of

learning disabled children into regular education classrooms. The author proposes an examination of these intervention methods to determine their potential benefits for remediating the social skills deficits of learning disabled children.

Because social skills deficits appear to characterize many children with learning disabilities, it is especially important that successful methods of remediation be discovered. According to Forness and Kavale (1996), however, these social skills deficits have thus far been resistant to treatment. Recognizing this problem has led to increased efforts in social skills training for students with LD. Such training involves encouraging learning disabled children to develop coping strategies to help them bypass the social difficulties that often lead to learned helplessness, negativism, and unsatisfying social interactions with peers (Spafford & Grosser, 1993). Bender and Wall (1994) caution that, although particular social skills can be successfully taught to children with learning disabilities, these enhanced skills or behaviors do not necessarily increase a child's overall social competence, nor do they automatically result in improved social acceptance by peers.

A number of researchers advocate social skills training for some, rather than all, children with LD. Forness and Kavale (1996) hypothesize that only a subset of learning disabled children respond positively to social skills training, and that these children generally have the mildest deficits and need the least remedial help. Sabornie (1994) reports that classroom teachers are often the most accurate judges of the social competence of learning disabled students, and suggests that these teachers could best determine which students are most in need of social skills instruction. Spafford and Grosser (1993) agree that

social skills should be taught only to the learning disabled students who exhibit deficits in this area, and advocate the development of systematic inservice programs to provide teachers with methods of assisting these students in acquiring appropriate social skills. Some studies indicate that not all learning disabled students need, or can benefit from, social skills interventions. Bryan (1994) reports that some social skills problems are only temporary, or may be remediated simply by changing the structure or organization of the classroom; in some cases, improving the classroom climate by (a) increasing teacher tolerance and support, or (b) improving the match between child and group, are enough to improve a child's overall social acceptance and eliminate some socialization problems. General programs designed to improve social skills may not adequately serve the needs of learning disabled students with social skills deficits. Bryan contends that these children can be identified at an early age, and that interventions designed specifically for their problems should be constructed. It appears, however, that the social skills training received by students with LD is thus far inadequate; after surveying fifty research studies, Forness and Kavale report that social skills training generated minimal improvement in social competence, and that in one fifth of studies, control groups not receiving social skills training actually showed greater improvement. As a result, Forness and Kavale warn that "social skills training has only limited empirical support" (p. 9), and suggest that more focused or intensive interventions might provide better results.

As noted, researchers differ in their opinions of how social skills training programs should be constructed, and toward which students these

programs should be focused. Bryan (1994) suggests that not all interventions should focus on the learning disabled child; in some cases, changing the environment may provide positive results. Roberts and Zubrick (1993) advocate social skills training programs for nondisabled as well as learning disabled students, reporting that the perceptions and behaviors of regular-class students can do a great deal to improve the social status and peer acceptance of children with LD. Others contend that social skills intervention should be directed only to the students exhibiting the deficits (Forness & Kavale, 1996; Sabornie, 1994; Spafford & Grosser, 1993). Forness and Kavale report that learning disabled and nondisabled children's opinions of the success of social skills training may differ significantly; although children with LD rank their social skills as much improved after social skills training, nondisabled students rated the improvement in the social skills of their learning disabled peers as almost negligible. Teachers reported only modest improvement in the social adjustment of learning disabled students after social skills remediation, with almost no improvement noted in problems such as conduct disorder and hyperactivity (Forness & Kavale). The author feels, therefore, that social skills training alone has not been proven an effective intervention for the social skills deficits of most learning disabled students.

Children who are comorbid for learning disabilities and psychiatric disorders may require interventions that differ from those typically provided. San Miguel, Forness, And Kavale (1996) report that, while the treatment of social skills deficits in students with LD has focused primarily on educational interventions, children with ADD or depression may require treatments that are more complex than social skills training. Forness and Kavale (1996) contend

that these psychiatric disorders may, in some cases, cause social skills deficits to emerge in learning disabled students. San Miguel et al. propose that students with psychiatric disorders may respond better to therapeutic, psychological, or even psychopharmacological treatment methods. While the comorbidity of psychiatric disorders and learning disabilities may account for the social skills deficits of some children with LD, this in no way explains the social problems of those learning disabled students who do not show evidence of ADD or depression. Therefore, while the small percentage of students with both LD and psychiatric disorders may benefit from therapeutic interventions, the author finds no evidence that this form of treatment would substantially improve the social competence of most learning disabled students.

The inclusion of students with learning disabilities into regular classrooms has been justified by claims of potential social and emotional benefits for the child with LD (Roberts & Zubrick, 1993). Friend and Bursuck (1996) define inclusion as the integration of students with disabilities into general education classrooms, and contend that these students' participation in regular classroom settings offers enhanced opportunities for the development of appropriate social skills. Roberts and Zubrick report that arguments favoring inclusion include (a) removing the stigma associated with segregated special education placements, (b) providing opportunities for learning disabled students to model appropriate behavior from nondisabled children, and (c) enhancing the social status of students with LD among their nondisabled peers. Those supporting inclusion contend that combining all children into a single social group would enhance the social development of children with learning disabilities by providing them with opportunities to interact appropriately

with nondisabled students, thus reducing the stigma associated with LD (Coleman & Minnett, 1993)

At the present time, the bulk of evidence suggests that learning disabled students do not make significant social gains when included in the regular classroom (Vaughn, Elbaum, & Schumm, 1996). Though the rationale for placing students with learning disabilities in regular classrooms is to improve their overall social functioning and acceptance by peers, Ochoa & Olivarez (1995) report that these anticipated benefits of inclusion have not been achieved. Though Demerath (1994) suggests that classrooms where teachers are supportive of inclusion evidence more positive relations between learning disabled and nondisabled students, Coleman and Minnett report that few, if any, of the social goals identified with inclusion have been attained. When students with LD are integrated into regular classrooms, they are less frequently accepted and more often rejected than nondisabled students in the class (Roberts & Zubrick, 1993). Vaughn et al. find no evidence that inclusion increases the social acceptance of learning disabled students; despite full time inclusion in general education classrooms, with teachers highly accepting of students with LD, the number of learning disabled students who were disliked by their regular education counterparts increased over the course of the school year. These findings oppose the notion held by some, that including students with LD in a regular classroom situation will automatically assure social acceptance for these students.

Although reducing the stigma associated with the learning disability label is frequently cited as an advantage of inclusion, this argument appears to yield equivocal results (Whinnery, King, Evans, & Gable, 1995). Vaughn &

Haager (1996) report that whereas the labeling process in special education is considered by some to be detrimental to self-esteem, others argue that placement in special education can have positive effects on the self-concept of learning disabled students. Though some researchers (Vaughn, Elbaum, & Schumm, 1996) express concern that the pull-out service delivery model contributes to the low social status and lack of class membership experienced by many learning disabled students, others find that, for some students, social and academic gains may be greater in pull-out programs than in inclusive settings (Whinnery et al.). Pull-out, or resource, programs can provide opportunities for learning disabled students to experience some social success; Coleman and Minnett (1993) assert that peers in a resource room can provide learning disabled children with a reference group within which they may more favorably perceive their own capabilities. Though they may be rejected and neglected in the regular classroom setting, learning disabled students appear more socially competent when other rejected and neglected students are used as a basis for comparison. Resource room placement, therefore, may actually help improve the self-esteem of some learning disabled children, as well as offering them an arena in which to experience both academic and social success.

Although inclusion is currently a popular placement option, with supporters touting its academic and social benefits, the present data suggest that its success in remediating the social skills deficits of learning disabled students may be somewhat illusionary (Whinnery, King, Evans, & Gable, 1995). Conderman (1995) asserts that "mere placement in mainstreamed settings does not enhance social interactions"(p. 13). While supporters of inclusion contend

that it is the least restrictive environment in which to educate students with LD, other researchers argue that an inclusive classroom might actually be more restrictive socially for the learning disabled student, and that social integration may be the most difficult and least successful aspect of inclusion for these students. According to Sale and Carey (1995), putting learning disabled students with their nondisabled peers for 100% of the school day does not change how these students are liked or disliked by their same-age peers. Roberts and Zubrick (1993) agree, stating that the social acceptance of students with LD "requires more than the mere placement of these students into the regular classroom and playground"(p. 201). Therefore, despite the current popularity of inclusion, the author finds little evidence to support its superiority as a placement option for remediating the social skills deficits of learning disabled students.

It appears that none of the aforementioned methods of remediating social skills deficits is completely successful in and of itself. Whereas therapeutic, psychological, and psychopharmacological treatments may help the social difficulties of some children comorbid for LD and psychiatric disorders, this does not provide a solution for most learning disabled children (San Miguel, Forness, & Kavale, 1996). Wenz-Gross and Siperstein (1997) cite some evidence which indicates that an inclusionary classroom, combined with a social skills training program that emphasizes mutual respect and acceptance of individual differences, can positively influence the social perceptions and relationships of students with and without learning disabilities. At the present time, however, little data are available to support these findings. Most current research indicates that learning disabled students in inclusive classrooms are

less accepted and more frequently rejected by their peers in the regular classroom (Wenz-Gross & Siperstein), and that social skills training programs are not adequately addressing these students' needs (Bander & Wall, 1994).

Discussion

Considerable attention has been focused on the vulnerability of learning disabled students to impairments in social competence (Kavale & Forness, 1996). Though social skills deficits do not characterize all students with LD, Bryan (1994) reports that approximately 75% of learning disabled children do experience difficulties in this area, suggesting that an association between LD and social skills deficits may exist. Children with learning disabilities experience lower social status and are perceived more negatively by both teachers and nondisabled peers (Wenz-Gross & Siperstein, 1997). While Vaughn & Hogan (1994) find that substandard academic achievement for both learning disabled and nondisabled students is associated with diminished social status and low peer acceptance, other data indicate that the social difficulties of children with LD are not solely a function of their academic failure (Tur-Kaspa & Bryan, 1995). In addition, learning disabled students view their own social status as problematic; Scarpati, Malloy, & Fleming (1996) note that children with LD consider themselves less socially skilled and less popular with teachers and peers than their non-learning disabled counterparts. Due to the correlation between early difficulties in peer relationships and problems occurring later in life, it is important to assess the social skills deficits of learning disabled students, so that interventions can be developed to assist these children's social problems (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993).

Students with LD can evidence problems in social competence that are manifested in a variety of areas. Tur-Kaspa and Bryan (1995) consider students with LD to be at greater risk for developing an assortment of social and behavioral problems; these may include deficits in verbal and nonverbal communication, immaturity, aggression and hostility, poor problem solving skills, and low self-esteem (Spafford & Grosser, 1993). These deficits may become more acute as the learning disabled student approaches adolescence, at which time relationships with peers take on increased importance (Bender & Wall, 1994). Forness and Kavale (1996) contend that, as learning disabled individuals enter adulthood, situations requiring social competence far outnumber those requiring academic skill; therefore, competent social skills may serve to minimize the adverse effects of academic deficits later in life. There is growing evidence that the social skills deficits evidenced by many learning disabled students can lead to negative outcomes, such as less-than-optimal employment outcomes, trouble with the law, and unsatisfactory personal and social lives (Bender & Wall).

Loneliness is often a problem for students with learning disabilities. Parker and Asher (1993) report that having even a single best friend can lessen the feelings of loneliness and social dissatisfaction commonly experienced by children with LD. Though these friendships may boost self-esteem and provide emotional support for learning disabled students, Wenz-Gross and Siperstein (1997) point out that the friendships of children with LD often do not provide the same positive features (such as intimacy, loyalty, and companionship) as the friendships of nondisabled children. Vaughn, Elbaum, and Schumm (1996) report, however, that even one reciprocal friendship can provide potent

immunization against the negative outcomes often associated with peer neglect and rejection.

Although social skills deficits are demonstrated across a variety of dimensions, Kavale and Forness (1996) report that a single cause for these deficits has not been identified. While some researchers contend that low academic achievement can lead to social problems (Haager & Vaughn, 1995), others disagree with this hypothesis (Tur-Kaspa & Bryan, 1995). San Miguel, Forness, and Kavale (1996) contend that, in instances where learning disabled students also suffer from psychiatric disorders (such as ADD or depression), the psychiatric disorder may be the primary cause of the social skills deficits. While this may be true in some cases, it is not suggested as a causal factor for all social skills deficits exhibited by learning disabled students. Spafford and Grosser (1993) indicate that the communication deficits and perceptual problems caused by neurological dysfunction may be the root of many social skills deficits. Though this theory appears to have some validity (Kavale & Forness, 1996; Wenz-Gross & Siperstein, 1997), neuropsychologists have yet to offer an evidential link between neurological impairment and social competence (Spafford & Grosser). Familial and environmental difficulties are also suggested as a possible cause of the social problems experienced by students with LD (Tur-Kaspa & Bryan, 1995); these are not considered, however, to be the primary causal factor in most cases (Kavale & Forness; Spafford & Grosser). It appears evident that no single cause can be determined for the prevalence of social skills deficits in children with LD, and that other avenues will have to be explored when searching for ways to remediate this problem.

Finding successful interventions for the social skills deficits of learning disabled students is necessary due to the strong connection between low social status and later maladjustment (Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). While various methods have been suggested, none appear completely successful at addressing these student's most pressing needs (Bender & Wall, 1994). Although therapeutic, psychological, and psychopharmacological methods may improve the social competence of students who also suffer from psychiatric disorders (San Miguel, Forness, & Kavale, 1996), these intervention methods do little to address the social skills problems of most learning disabled children. Social skills training programs, which are advocated by some as an effective method of remediating social skills deficits (Sabornie, 1994; Spafford & Grosser, 1993), have shown only modest success (Forness & Kavale, 1996).

The inclusion of learning disabled children into regular classrooms has received a great deal of popular support. Roberts and Zubrick (1993) claim the included child receives social and emotional benefits, including enhanced social status, opportunities to model appropriate behavior from nondisabled peers, and reduction of the stigma of being labeled LD. Ochoa and Olivarez (1995) report that these anticipated benefits of inclusion have not been achieved, and Conderman (1995) asserts that merely placing a learning disabled student in a regular classroom does not enhance social interactions or improve relations between learning disabled and nondisabled children. Coleman and Minnett (1993) indicate that children with LD may find more social acceptance when receiving special education services in a resource room; academic gains may also be greater for learning disabled students in a pull-out program than

in a regular classroom (Whinnery, King, & Gable, 1995). Little evidence supports inclusion as a solution for the social problems of students with LD.

Few conclusions can be reached on the basis of the information presented here. Although social skills deficits may coexist with learning disabilities, the author does not find sufficient evidence to support the hypothesis that LD causes social skills deficits to occur. Because a higher percentage of learning disabled students exhibit social skills deficits, and because of the negative outcomes reported for these individuals, appropriate intervention methods must be developed and implemented. The search for causation has not yielded information which might aid in developing remediation methods and, thus far, the intervention methods attempted have not shown consistent success. The author believes additional research in this area is needed; the findings reported by Wenz-Gross and Siperstein (1997), in which students (both learning disabled and nondisabled) are given social skills training and educated in an inclusive classroom by a specially trained teacher, appear somewhat promising. Wenz-Gross and Siperstein admit that not much data are available to support these findings; additional information must be gathered before any conclusions can be reached. At the present time, there appear to be no easy solutions to this problem; until answers can be found, the search for intervention methods that successfully remediate the social skills deficits of learning disabled children must continue.

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